AMI Imaging Centre and the IDM-µ: Microscope access for local users

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This document lays out access mechanisms to the AMI Imaging Centre Microscopes (AMI-IC) in the IDM Microscopy lab, UCT Faculty of Health Sciences. These guidelines are intended to facilitate access to the AMI-IC microscopes while minimizing redundancy of AMI-IC and IDM Microscopy Platform (IDM-µ) staff time contributions, and competition posed by the AMI-IC to other local/ regional imaging facilities.

There are three main mechanisms to access the AMI-IC microscopes:

1. The AMI-IC Visiting Researcher Program
2. The AMI-IC incubator program
3. The AMI-IDM-µ Program

1. All interested users can apply to access the AMI-IC microscopes via the AMI-IC **Visiting Researcher Program (VRP).**
In summary (for full details see the AMI website):

I. The VRP solicits applications only through intermittent calls for applications for clearly defined experiments or sets of experiments, rather than full projects. Instructions and selection criteria will be communicated with each open call. Following peer review, experiments accepted to the VRP are supported, hosted and scheduled by AMI-IC staff. Researchers can be hosted for a residency of up to 6 weeks per accepted application to carry out the planned experiments.

II. If a researcher from within South Africa is accepted to carry out experiments through the VRP, they have the option to forgo the 4-6 week residency, and instead undertake up to three 1-week or two 2-week residencies at the AMI-IC.

III. The VRP covers the cost of travel, accommodation and the base experimental costs for all hosted residents, and ensures dedicated and exclusive access to the microscope required for the experiments. In the case of more than one microscope being required for a set of experiments, the secondary microscope can be booked with priority but not exclusivity allocated to the resident.

IV. Travel planning, microscopy training, data handling, project and residencies reporting, etc, are all subject to the AMI MoU established between AMI-IC and VRP residents.

V. A project may be invited to graduate from the VRP to the incubator program, at the discretion of AMI-IC staff and the AMI leadership.

2. AMI-IC incubator program
In summary (for full details see the AMI website):

I. Projects with high potential and seeking novel applications or requiring large, long-term impact can be graduated from the VRP to the incubator program, with the intention to develop the project such that it can take advantage of more advanced

imaging technologies available within the AMI-IC, or at partner facilities locally or globally.

II. Projects on the incubator program can be supported through a range of mechanisms, including repeated residencies and ongoing collaborations, at the discretion of AMI leadership and dependent on the agreement of AMI-IC staff and key researchers.

III. Continuation on the incubation program is subject to 6-monthly review between researchers and AMI-IC and/or summary reports at the end of each residency visit.

3. **AMI-IDM-µ Program**:
Outside of the AMI-IC VRP and incubator programs, interested users can request access to AMI-IC microscopes via the IDM-µ, and thus with support from the IDM Microscopy Platform (IDM-µ) and staff. In this case, access follows the same processes as for all IDM-µ systems, and as per the terms laid out in the IDM-µ access policy and users' MOU, with a few additional terms. In brief:

I. Researchers are required to request a consultation from IDM-µ staff and discuss the project and imaging options

II. As part of their microscope access request, researchers are required to submit a ~1-page experiment/ project description including:

i. Brief background and rationale
ii. Experiment description and plan
iii. Data analysis plan/ needs
iv. Experiment impact (i.e. on a student's project, expected publications or grant submissions, research field)
v. Justification for microscope need. If a comparable non-AMI instrument is available for use, the request for AMI Microscope access will need to be justified; for example, this could be based on technical specifications and functionality needed, or limited time or functionality available on the non-AMI system.

III. Access requests will be considered by IDM-µ staff, and expert scientists where appropriate. Prioritization criteria will focus on:

i. Reasonable science and feasibility of imaging work
ii. Expected impact of work on a student's or ECR's project, or similar
iii. Lack of local access to equivalent imaging technology. Where equivalent technology is available in other IDM-µ microscopes or another local imaging facility, applicants may be referred there if considered more appropriate.

IV. Access and consultation requests can be submitted on an *ad hoc* basis. IDM-µ staff aim for a 1-week response time on submitted project descriptions. Where this timeline cannot be met, this will be communicated within 5 days of submission.

V. IDM-µ and AMI-IC staff reserve the right to decline an access request if it is determined to be beyond their capacity or remit to support, or not reasonably feasible. Wherever possible, they will provide feedback in terms of experimental recommendations and/or referrals to other facilities that may be best suited to host the work.

VI. Applications are required to be submitted for each new project. Where a project is on-going, but an additional/ new user is added and needs microscope access, that user will require microscope training from IDM-µ staff before they are allowed to access the microscope.

VII. Access to the AMI lab and booking platform will be dependent on appropriate training, SOP documentation, and safety compliance.

VIII. Access to and booking of the microscopes is dependent on their availability when not dedicated to a VRP or Incubator Program resident.

IX. AMI-IC staff reserve the right to cancel existing system bookings to accommodate unexpected VRP needs, at their sole discretion. This will only be under exceptional circumstances and will be done with as much advance notice as possible.

X. All users accessing the AMI-IC microscopes through the AMI-IDM-µ program are required to agree and adhere to the IDM-µ users' policy and MOU regarding training and access, fair use, bookings, equipment care and acknowledgements.

XI. All users accessing the AMI-IC microscopes through the AMI-IDM-µ program are required to acknowledge both the AMI-IC and IDM-µ. Please adapt the following text as appropriate: *Microscopy/Image analysis was performed with the support of the Africa Microscopy Initiative Imaging Centre (RRID:SCR_025881) and the IDM Microscopy Platform at University of Cape Town Faculty of Health Sciences (RRID:SCR_022309), and NAME(S) of MEMBER(S) of STAFF.*

XII. Users are required to inform the IDM-µ of all project outputs resulting from access to AMI-IC microscopes and analysis infrastructure – this includes grant applications, publications, and theses or dissertations. User project descriptions and project outputs will be shared across both the IDM-µ and AMI-IC staff, for important reporting purposes.

XIII. Access costs for microscopes through the AMI-IDM-µ Program are applied on the basis of a pilot assay, training, and/or hourly user fee, as per the attached fee structure. Projects and user access will be reviewed on a 6-9 month basis to ensure access remains reasonable and is costed at the appropriate level.